

## **Changes in growth and recruitment of the Puget Sound rockfish (*Sebastes emphaeus*) and implications for its role in the reef community in northern Puget Sound**

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Age composition and growth rates of Puget Sound rockfish in northern Puget Sound, WA were compared between 1994, 2001, and 2002. Variable recruitment success appears to greatly affect the abundance of this species, which increased two orders of magnitude over the last two years. A rapid population expansion began in 1990 and 91, at a time when several important predators had been reduced through over-fishing. Growth (length at age) of Puget Sound rockfish slowed significantly between 1994 and 2002 and continued to decrease in 2001 ( $p < 0.001$ ). El Nino events result in relatively poor recruitment success for Puget Sound rockfish, and could also result in reduced growth rates for adults. Density-dependent growth or interactions with predators could also have contributed to the declining trend in size at age observed. Observation of the changing role of Puget Sound rockfish in the local food web appears useful in understanding broader community changes related to recreational fishing.